

## REMARKS/ARGUMENTS

### I. Applicants' Invention and Preliminary Comments.

Applicants' invention relates to the discovery that surface plasmon resonance can be detected with a device that allows for the positioning of a differential position or intensity sensitive photo-detector at the surface plasmon resonance intensity minimum such that the difference in the intensity signal received is near zero and then detecting subsequent changes in the intensity distribution due to surface plasmon resonance angular shift.

Claims 18, 20, 31, and 38 have been amended to address the rejections presented in the outstanding action and to expedite allowance of those claims. No new matter is introduced thereby. Claim 31 has been amended in order to clarify the source of the electrical current. This amendment finds support in the specification at page 10, lines 10-23.

### II. Outstanding Rejections

Claim 38 stands rejected under 35 U.S.C. §112 (second paragraph) and 35 U.S.C. §101.

Claims 1-7, 18-25, 29, 30, 37 and 39 stand rejected under 35 U.S.C. §103(a) over Naya U.S. Patent No. 5,875,032 in view of Hoppe et al. U.S. Patent No. 6,570,657.

### III. Patentability Arguments

#### A. The Rejections Under 35 U.S.C. §§112 and 101 should be withdrawn.

The indefiniteness and utility rejections of claim 38 should be withdrawn because it has been amended in accordance with the Patent Office's suggestions. Specifically, claim 38 has been amended to recite the step of "utilizing a sensor in accordance with claim 18 in biological, biochemical, or chemical testing" to delimit how this embodiment of the invention is practiced. This amendment finds support in the specification at page 5, lines 6-8. This claim is now in accordance with the Examiner's suggestions and it is submitted that the rejection for indefiniteness and improper definition of a process should be withdrawn and claim 38 should be allowed.

**B. The Rejection Under 35 U.S.C. §103(a) over Naya in view of Hoppe et al. should be withdrawn.**

The obviousness rejection of claims 1-7, 18-25, 29, 30, 37 and 39 under 35 U.S.C. §103(a) over Naya and Hoppe et al. should be withdrawn because Naya fails to teach a method or device that allows for the positioning of a differential position or intensity sensitive photo-detector at the surface plasmon resonance intensity minimum such that the difference in the intensity signal received is near zero and then detecting subsequent changes in the intensity distribution due to surface plasmon resonance angular shift.

Specifically, Naya et al. is directed to a particular type of surface plasmon resonance sensor. While the reference discloses a sensor with a sensor body over which a layer of metallic material is disposed and a light source focused on the layer of metallic material (Fig. 1 and col. 3, lines ) it does not teach an adjustable photodetector that can be positioned such that the difference in the intensity signal received is near zero, and then detecting subsequent changes in the intensity distribution due to surface plasmon resonance angular shift as recited in the present claims.

While Hoppe et al. discloses the presence of flow chamber for analyzing fluid samples (*see* col. 3, lines 34-47), it fails to make up for the deficiencies of Naya because it does not teach a method or device that allows for the positioning of a differential position or intensity sensitive photo-detector at the surface plasmon resonance intensity minimum such that the difference in the intensity signal received is near zero and then detecting subsequent changes in the intensity distribution due to surface plasmon resonance angular shift. Hoppe et al. makes no reference to any adjustable detector. Accordingly, claims 1-7, 18-25, 29, 30, 37 and 39 are nonobvious over Naya and Hoppe et al. and should be allowed.

## CONCLUSION

For all of the foregoing reasons, the applicant's respectfully request entry of the foregoing amendments and that the rejections should now be withdrawn and an early notice of all pending claims is respectfully solicited. Should the Examiner wish to discuss any issues of form or substance in order to expedite allowance of the pending application, he is invited to contact the undersigned attorney at the number indicated below.

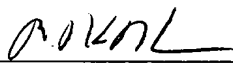
If there are any additional fees due in connection with the filing of this response, please charge the fees to our Deposit Account No. 13-2855.

The Applicant does not intend by these or any other amendments to abandon the subject matter of any claim as originally filed, and reserves the right to pursue such subject matter in this application or related applications, such as continuing applications.

Respectfully submitted,

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